

A P P L E P R E S E N T S



# Spotlight

FROM CHILDREN'S TELEVISION WORKSHOP

FOR CHILDREN 9 TO 13 YEARS OLD



INTEGER BASIC







# Spotlight



## REFLECT /6

Bounce a light beam  
towards a target

## SPOTLIGHT /8

Try to catch the man  
in the spotlight

## HOT STUFF /12

Guess the computer's  
secret number

## BOXED IN /16

Capture the computer's squares



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# To the Parent

**T**he games and activities in this booklet have been developed by the Children's Television Workshop, producers of *Sesame Street*, *The Electric Company*, and *3-2-1 Contact*. These computer games and activities are the latest product of CTW's continuing commitment to expanding the frontier of entertainment and learning.

We feel that computers occupy an important place on this frontier and that they can fit easily and naturally into a young person's world. The key is play: play and discovery go hand in hand. This principle has guided us in the development of our computer materials.

We hope you will review these games with the same care you use in choosing other materials for your child. You will see some new activities as well as some familiar word, logic, and math games. These activities were chosen because they are fun and appropriate for your child's age group.

What does it mean to say computer activities are child-appropriate? To us it means that care in design and testing has gone into the following features: The kind and degree of interaction • Pace that is within the user's control • Placement and amount of graphic and textual information on the screen • Interactive "fail-safe" instructions • Nonthreatening challenge, encouraging feedback • Avoidance of violence and sexism • Emphasis on constructive play





# Hi!

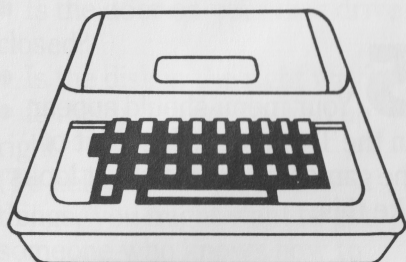
Welcome to the world of the Children's Television Workshop. This booklet will tell you a bit about the four games on your computer disk. And, since the things you see and do on your computer are things that can be explored in many other ways, we've also included some ideas for related activities to do when your Apple is turned off.

If you've used a computer before, you'll feel right at home. But, don't worry, no computer experience is necessary to play our games. They have been specially designed to be easy to learn.

We hope you have as much fun playing them as we had creating them.



# Here is a list of the equipment you'll need to use the programs on this disk:

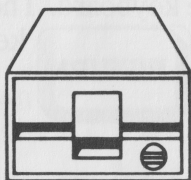


Apple II with 48K bytes RAM;  
or

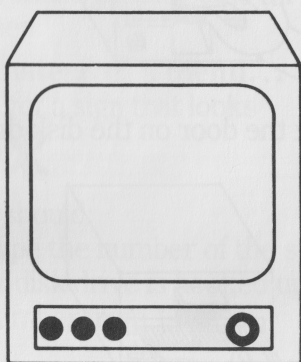
Apple II Plus with 48K bytes  
RAM and an Integer BASIC  
Firmware Card;

or

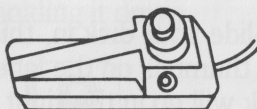
Apple II Plus with 48K bytes  
RAM and the Apple Language  
System



Apple Disk II with controller  
(16-sector PROMS)



Video Monitor or Television

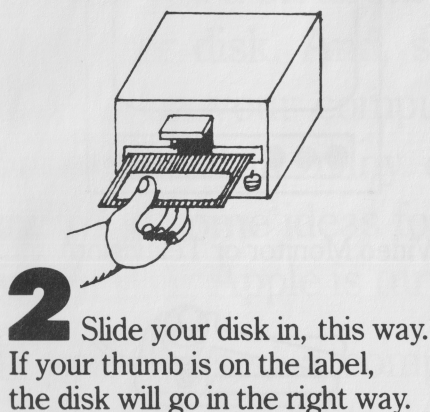
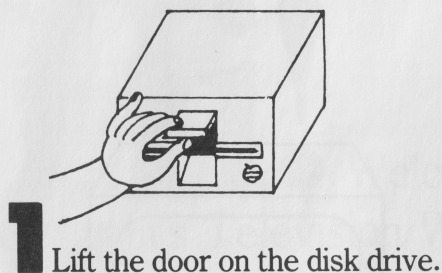


Paddles

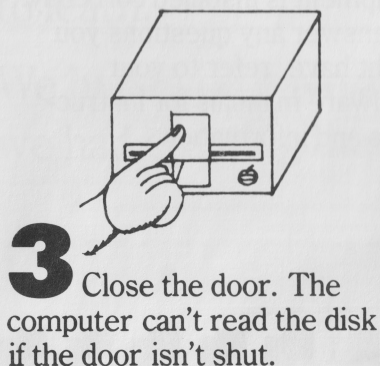
If you run into problems at any  
time, check to see that your  
equipment is installed correctly.  
To answer any questions you  
might have, refer to your  
hardware manuals for instruc-  
tions and information.



# How To Get Started

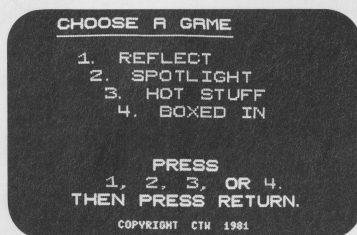


**Never touch the plastic part of the disk with your fingers. Touch only the paper envelope!**

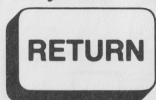


**4** Turn on your Apple. Turn on the TV, too.

**5** Your menu should appear on the TV screen. It's a list of the games on your disk. It looks like this:



When you decide which game you want to play, type its number on the keyboard. Then, press the

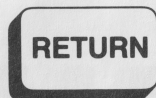


key.

For instance, if you want to play Spotlight, you would press



and then





# If you don't get a menu, here's what to do:

**If nothing at all appears on your screen, check these three things:**

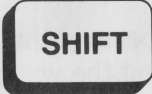
- Is the door on your disk drive closed?
  - Is the disk in the right way?
  - Is the disk drive hooked up right?
- (To help you check these things, you might want to get someone who knows how to hook up the drive.)


**If, instead of a menu...**  
You get a sign that looks like

> or ]

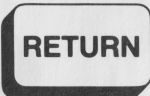
You should:


- Type  

Hold down 

while you press   
(that's the same as the 3 key.)


- Then type the number of the slot your disk drive is hooked up to. If you're not sure of the right number, ask someone who knows.



- Then, press   
Your menu should come on the screen.

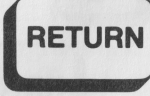
**If, instead of a menu...**  
You get a sign that looks like 


You should:

- Type the number of the slot your disk drive is hooked up to (a number from 1 to 7.)

- Press the  key.  
Keep holding it down.

- Press  while you're still holding  down.

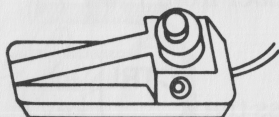
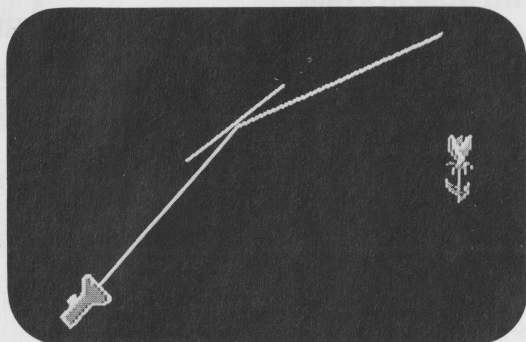
- Then, press   
Your menu should come on the screen.  
If you want to start a new game,

press 

**Get ready, Get set, Play!**

# REFLECT

A GAME ABOUT ANGLES OF REFLECTION



This game needs paddles. If your paddles aren't connected, you may need to get help from someone who knows how to connect them.

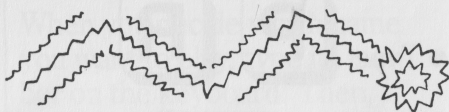
If you want to play Reflect,

press **1**

then press **RETURN**

You will only use one of the paddles (paddle 0) for this game. If your paddles aren't marked, try both of them out to

see which one moves the mirror on the screen. You might want to put a small piece of tape on this paddle so you can tell the two apart later. Now you're ready to play Reflect.



The light beam in this game behaves just the way a real light beam does when it reflects off a mirror. When you move the mirror, you change the angle at which the light bounces. Try to hit the objects that you see. It may take some time, but with a little practice, you'll be able to make the flower bloom with no trouble at all!

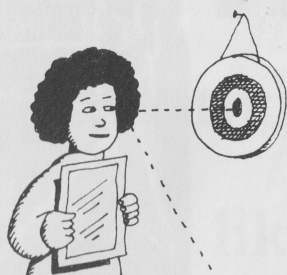
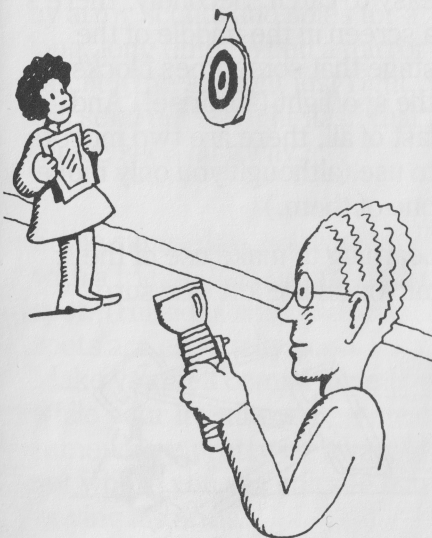


# After you play Reflect, you might want to bounce around these ideas:

## 1 Mirror, Mirror on the Wall

For this game of skill, you need two people, a small mirror, and a flashlight or a small penlight. If you have a flashlight, you'll need to cover the lens with black paper, leaving only a nickel-sized hole in the center of the paper for the light to come out.

The person holding the mirror should stand about two feet from a wall. The flashlight-holder should stand about five feet from the wall (at an angle as in the picture.)



The flashlight holder chooses a spot on the wall. It can either be something that's on the wall already, like a flower in the wallpaper, or, it can be a small target that you make and hang on the wall. (Be sure to get permission before hanging anything on the wall!)

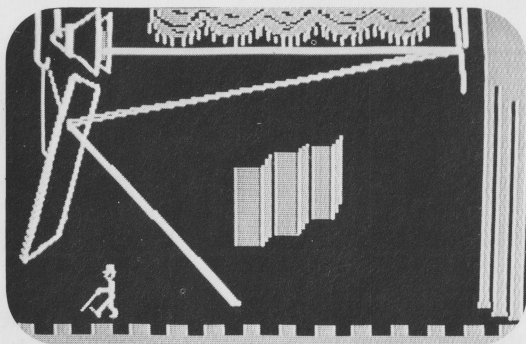
Now, turn the lights down low. The room has to be pretty dark for this game to work well.

Okay, flashlight-holder, turn off your flashlight while the mirror holder tries to position her mirror so the light will bounce off it at just the right angle to hit the spot on the wall.

When the mirror-holder says "go", turn the flashlight on. Did the light hit the target? If not, let the mirror-holder move the mirror until it does. Then, switch places and let the flashlight-holder try using the mirror.

# SPOTLIGHT

A REFLECTION GAME WITH A MOVING TARGET



This game needs paddles. If your paddles aren't connected, you may need to get help from someone who knows how to connect them.

If you want to play Spotlight,

press **2**

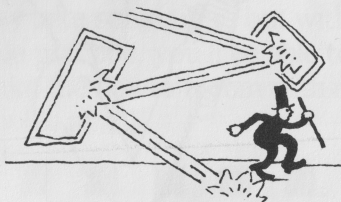
then press **RETURN**

If you have already played Reflect, you may know which paddle to use to move the mirror. If not, try turning your paddles, one at a time, until you see which one moves the mirror at the upper right of your screen. Mark this paddle with a piece of tape.

In Spotlight, just as in Reflect, you shine a light off a mirror and try to hit an object. But, as you'll soon see, Spotlight's a much more complicated game.

First of all, there's a moving target. Our friend Steve isn't so easy to catch. Secondly, there's a screen in the middle of the stage that sometimes blocks the spotlight (surprise!) And last of all, there are two mirrors to use (although you only move one of them.)

Learning to make use of the mirror on the left side sure





comes in handy when it comes to getting around the screen we just talked about! As you can see, there's a lot to think about.

So, if you think you've mastered Reflect, or even if you haven't, give Spotlight a try. Watch the angle of the mirror, and see if you can hit Steve with the Spotlight.



## If you liked playing Spotlight, here are some other games you might like:

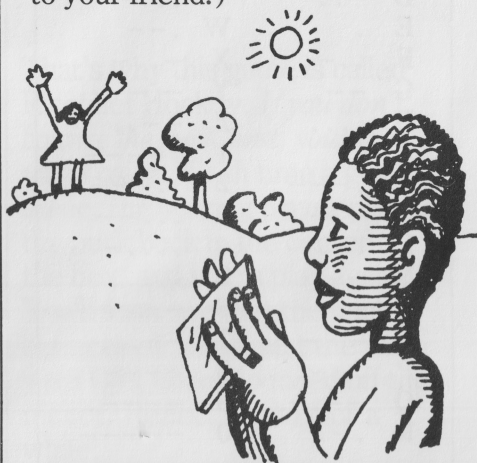
### **1** The Light Fantastic

You can send secret messages to a friend without making a sound. All you need is a bright, sunny day and a mirror.

Mirror signals have been used by army scouts and spies for a long, long time. When a mirror catches the sunlight just right, it will send out a bright flash that can be seen far away.

Some sunny day, go outside with a friend. You can pick your spot. (Hillsides and other raised spots are especially good.) Make yourself comfortable while your friend goes somewhere pretty far away, but where you can still see him waving his arms.

Now take out your mirror. Try tilting it in different directions to catch the sun. When your friend waves his arms that will mean he's seen the sun's flash and you should hold the mirror steady. You'll need to hold your mirror still for a while, so if you can rest it on something solid, do that. (But don't change the angle—or the sun won't reflect to your friend.)



By covering the mirror with your hand or a piece of paper and then uncovering it, you can make the light flash for a shorter or longer time. Using this method, you can spell words with Morse code and send a message to your friend. Here's the code. Dots are short flashes, dashes are longer ones. Leave plenty of time between letters, and even more time between words.



A	.-	S	...
B	-...	T	-
C	-. -.	U	.. -
D	-..	V	... -
E	.	W	.- -
F	.. -.	X	-.. -
G	--.	Y	-.- -
H	....	Z	--..
I	..	1	.- - - -
J	.- - -	2	.. - - -
K	-.-	3	... - -
L	.-..	4	.... -
M	--	5	.....
N	-.	6	-....
O	---	7	--...
P	.- -.	8	- - - - .
Q	- -. -	9	- - - - .
R	.-.	0	- - - - -

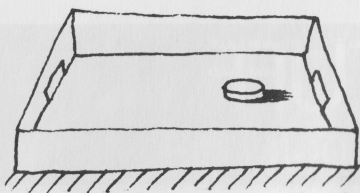
If your friend doesn't know the Morse alphabet by heart, he can write the flashes down quickly and then go back and figure them out when you're finished. Then it's your friend's turn to send you a message.

Note: the position of the sun will keep changing, so you may have to move your mirror slightly from time to time.

## 2 Ricochet Hockey

With just a little effort, you can make a hockey game that you and your friends will want to play over and over. Here's what you need:

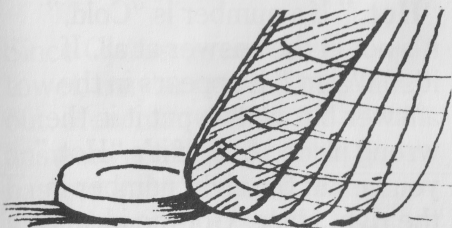
- **A shallow, rectangular cardboard box**, no more than about three inches deep. It should be at least 12 inches long—the bigger the better. You can cut down a taller box, or use something like a top from a boot box.
- **A pair of strong scissors.** You may want to get some help with the cutting.
- **A “hockey puck”**—a checker works best, but you can use a bottle cap, large button, or coin instead.
- **Two “hockey sticks”**—pencils with erasers are a good choice. Tongue depressors and popsicle sticks work, too.



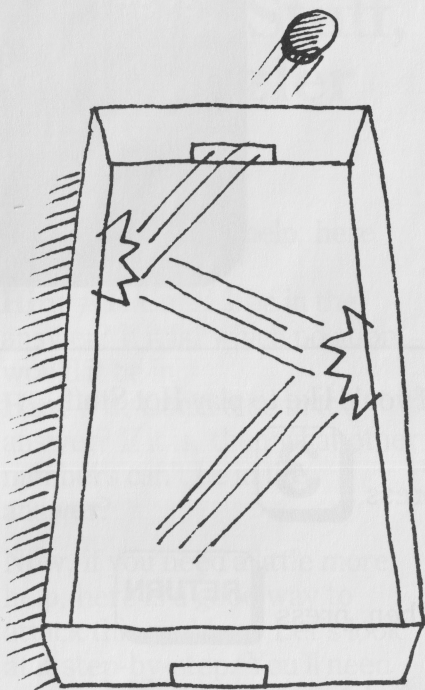
Cut out a rectangular hole at each end of the box, as in the picture. The smaller you make the hole, the harder the game will be. About three inches is a good width. Make sure there is no cardboard left sticking up, because you want your puck to be able to slide easily out the hole.



Place your puck in the middle of the box, and decide who will go first. You'll take turns—one hit per player. (The best way to hit the puck if you're using a pencil is to put the eraser on top of the puck and "flick" it. If you're using a tongue depressor or popsicle stick, knock the puck from the side.)



The idea of the game is to score goals by using your "hockey stick" to knock the puck through the hole on your opponent's side of the box. But, there's a catch! The puck must bounce off one of the walls before it goes through the hole.

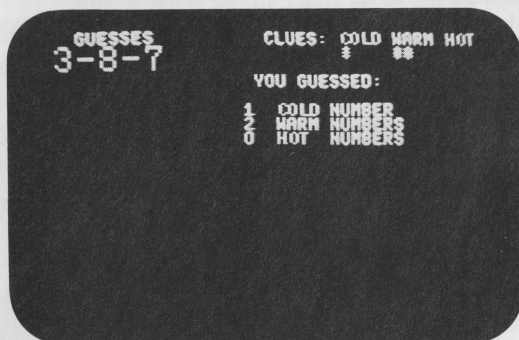


That's why this game is called Ricochet Hockey. *If you don't bounce the puck first, your goal won't count.* Each time a goal is made, the scoring player places the puck back in the center of the box, and starts play again. You'll soon see that the puck bounces off walls, just the way your light beam bounced off the mirror. Reflect on that for a while!



# HOT STUFF

A GAME OF LOGIC



If you'd like to play Hot Stuff,

press



Then, press

RETURN

Hot Stuff is a game of logic, so put on your thinking cap!



Can you guess what the computer's secret three-digit number is? The key is to pay

attention to the clues the computer gives you. You can use them to figure out which number choices might be in the answer, and which ones you can eliminate.

To start out, type in 3 numbers.

Press

RETURN

after each number.

The computer will tell you about the numbers you've guessed by using the words "Cold," "Warm," and "Hot." If a number is "Cold," it's not in the answer at all. If it's "Warm," it appears in the answer but you've put it in the wrong place. And, if it's "Hot," you've put the right number in the right place. Got the idea?

There's just one more thing—don't expect the computer to give you *all* the answers! It will tell you how many numbers are Cold, Warm, and Hot, **But**... it

won't tell you which ones are which! You have to figure that out for yourself. So, pay attention to these clues, and show your stuff!



# If you liked playing Hot Stuff, here's a Hot Stuff Puzzler to work out.

**O**ur Friend Cy Bernetec was playing Hot Stuff with his computer. After these four clues, he was ready to give up the game:

	Cold	Warm	Hot
First Guess	478	★★	★
Second Guess:	815	★★	★
Third Guess:	286	★★	★
Fourth Guess:	321	★★	★

Since Cy has thrown in the towel, maybe you can help him out. How many different answers could fit the clues he has gotten? Can you figure out what they are?

If you need a little help, here are two hints:

**Hint #1:** Could 1 be in the answer? If it is, which position would it be in?

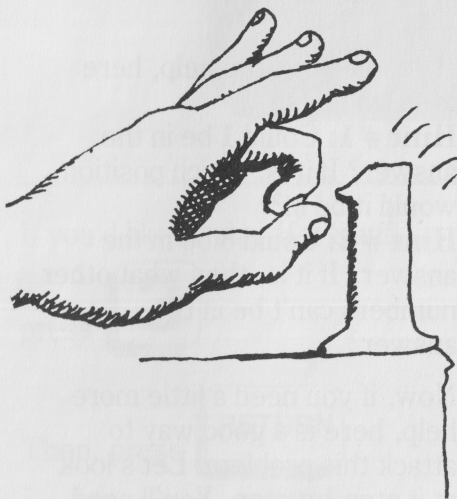
**Hint #2:** Could 8 be in the answer? If it is, then what other numbers can't be in the answer?

Now, if you need a little more help, here is a good way to attack this problem. Let's look at it step-by-step. You'll need to pay close attention, so take the phone off the hook!



• **Could 1 be in the answer?**

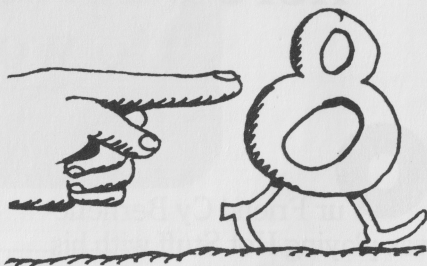
If it is, it must be the middle digit. Why? Because the clues for the second guess show that only one number in the guess is hot. But, if 1 is the answer, the clues for the fourth guess show that it must be the last digit. (there's only one hot number in the fourth guess, too.) **1 can't be both the middle digit and the last digit, so it must not be part of the answer at all.**



• **8 is in several guesses.**

Could it be in the answer? Let's suppose it is. In that case, the clues for the second guess show that 8 must be the first digit, because, again, only one number in the guess is hot. If 8 is hot, then 1 and 5 aren't in the answer because they are cold. The third guess shows that 2 and 6 aren't in the answer either (since 8 is the warm number in this guess, the other two numbers must be cold.)

Now, look at the fourth guess. Since we've just decided that 1 and 2 aren't in the answer, 3 must be the hot number in the fourth guess. But, wait! If 3 is hot, that means 3 is the first digit. We found out earlier that 8 was the first digit. 3 and 8 can't both go in the first spot—so, **8 can't be in the answer at all!**



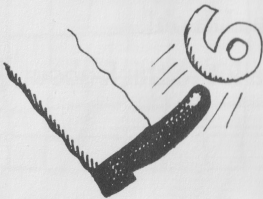
Since 8 and 1, aren't in the answer, 5 must be the hot number in the second guess. **So the last digit in the answer must be 5.**







• **Now, Let's look at the third guess.** We know that 8 isn't the warm number. Let's suppose 6 is. This means that 2 isn't, because only one of the numbers 2, 8, or 6 is warm. If 2 isn't in the answer, then 3 must be the hot digit in the fourth guess, since we already know that 1 isn't in the answer. So, if 6 is the warm number in the third guess, the answer must be 365. But, wait again! What about the clues given for the first guess? One of those numbers is warm, and must be in the answer. But there's no room for that number if 6 is in the answer. **So, 6 can't be the warm number in the third guess after all.**



That means that 2 has to be the warm number in the third guess. **Then 2 must be the hot number in the last guess. So the answer so far is 25.**

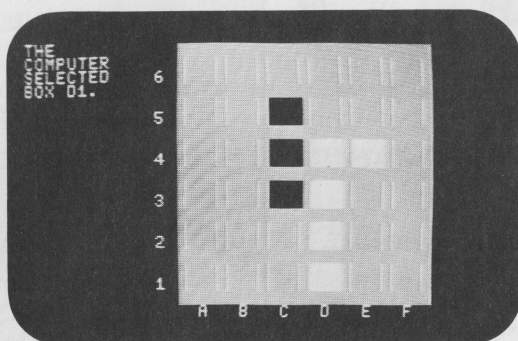


• **What's the first number?** Either 4, 7 or 8 must be warm in the first guess. We already know that 8 isn't in the answer. Now, it can't be 4 because then the answer would be 425, and the first clue should be hot instead of warm. That only leaves 7. **So, there is only one possible answer: IT MUST BE 725!**  
Whew!



# BOXED IN

A STRATEGY GAME



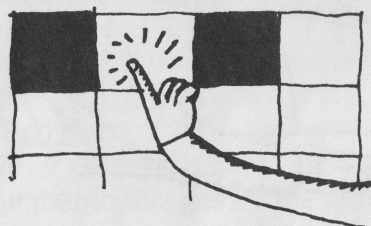
If you'd like to play Boxed In,

press **4**

Then, press

**RETURN**

You have the black squares, the computer has the white. The challenge—who will capture the greatest number of squares on the board? The computer has unfailing logic, so you've really got to be on the ball when you play this game.



In order to capture the computer's pieces, you must box them in between two of yours, like a sandwich. There can be one piece or several trapped in your sandwich; and you can make a vertical, horizontal or diagonal sandwich (sometimes two of these at once!) When you box pieces in, they change to your color.

The computer is, of course, trying to trap your pieces. And, you'll see that pieces can change color several times during a game. A piece that you've trapped can be captured back by the computer later in the game. Uh oh!

There's a lot to think about,

some boxes are more important than others, and you've got to plan ahead to stay ahead. The truth is, you may

not win the first time you play, but you'll get better every time. See if you can beat the computer at its own game!

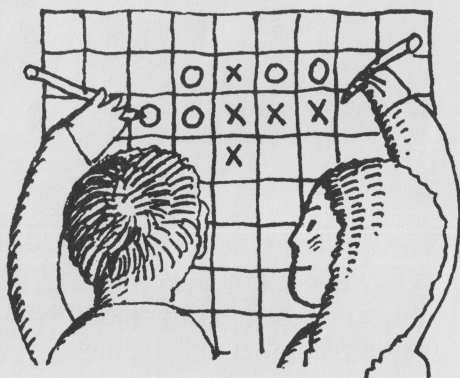
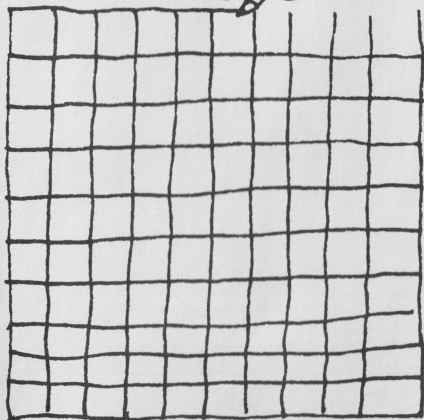
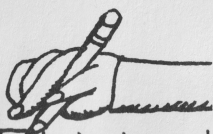


## If you enjoyed playing Boxed In, we hope you'll like these games, too.

### **1** Take Five

Here's a good game to help you while away some time—when you're on a long trip, or waiting in line. It takes two to play.

First, draw a grid like the one below, ten or more boxes on a side.



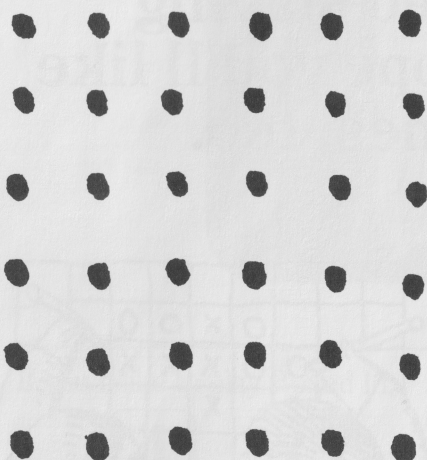
Then, take turns. Each person makes a mark (X and O work fine) in the box of his choice. The object of the game is to build a row of five boxes—either horizontally, vertically, or diagonally.

Remember, you'll have to play both offensively and defensively. You want to finish your line, but you also want to stop your opponent from finishing his. See who can be the first to take five.

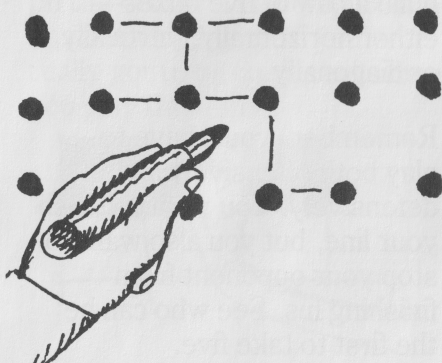


# 2 Dot's Dot

This is another simple game. You play it with one other person, on a grid made up of dots, like this:

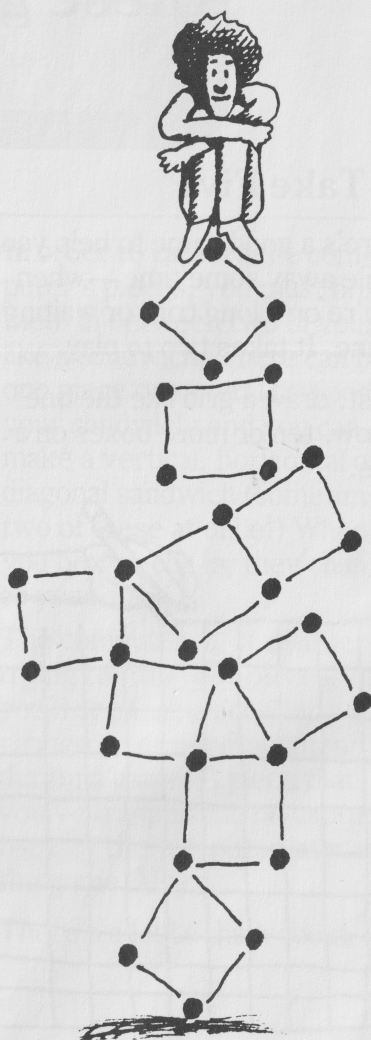


The object of the game is to finish as many boxes as you can, while preventing the other player from doing the same. Taking turns, each player draws either a horizontal or vertical line from one dot to another (only one line each turn!)



Each time a player finishes a box, she claims it by putting her initial inside, and gets to draw one more line.

The player with the most boxes at the end of the game, wins.







# Spotlight

Integer Basic required and an Apple II 48K system, one disk drive and game paddles. A color TV is recommended.

## 1. Reflect

Bounce a light beam towards a target

## 2. Spotlight

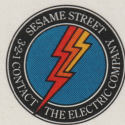
Try to catch the man in the spotlight

## 3. Hot Stuff

Guess the computer's secret number

## 4. Boxed In

Capture the computer's squares



The games and activities in this package have been developed by the Children's Television Workshop, producers of Sesame Street, The Electric Company, and 3-2-1 Contact. We feel that computers fit easily and naturally into a young person's world.

The key is play: play and discovery go hand in hand. In keeping with the CTW philosophy, every game we present is created with great care. Research with children has been incorporated into the design of the games to ensure that they are enjoyable and appropriate for the recommended age group. We hope that you and your family will have fun playing these games and activities together.



**apple computer**

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